

What is claimed is:

1. A privacy filter for use on an electronic display screen comprising:
a flexible sheet of photopolymer film having a 180 degree field of view perpendicular to a first side of said sheet,
said sheet of photopolymer film having at least one holographic image exposed thereon wherein
said at least one holographic image is not visible within a central field of view, and
said at least one holographic image is visible within left and right holographic fields of view disposed to the left and right sides of said central field of view.
2. The privacy filter of claim 1 wherein said central field of view is about 45 to about 60 degrees in angular dimension symmetrically centered about a centerline extending perpendicular to said sheet.
3. The privacy filter of claim 1 wherein said left and right holographic fields of view are about 30 to about 45 degrees in angular dimension symmetrically arranged on opposing sides of said central field of view.
4. The privacy filter of claim 2 wherein said left and right holographic fields of view are about 30 to about 45 degrees in angular dimension symmetrically arranged on opposing sides of said central field of view.
5. The privacy filter of claim 1 wherein said central field of view is about 60 degrees in angular dimension symmetrically centered about a centerline extending perpendicular to said sheet and said left and right holographic fields of view are about 30 degrees in angular dimension symmetrically arranged on opposing side of said central field of view.

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6. The privacy filter of claim 1 wherein said at least one holographic image comprises a plurality of individual holographic images arranged in a predetermined pattern on said sheet of photopolymer film.
7. The privacy filter of claim 6 wherein said central field of view is about 45 to about 60 degrees in angular dimension symmetrically centered about a centerline extending perpendicular to said sheet.
8. The privacy filter of claim 6 wherein said left and right holographic fields of view are about 30 to about 45 degrees in angular dimension symmetrically arranged on opposing sides of said central field of view.
9. The privacy filter of claim 8 wherein said left and right holographic fields of view are about 30 to about 45 degrees in angular dimension symmetrically arranged on opposing sides of said central field of view.
10. The privacy filter of claim 1 further comprising a layer of adhering material disposed on a second side of said photopolymer film for adhering said photopolymer film to the surface of a display screen.
11. The privacy filter of claim 10 wherein said layer of adhering material comprises a sheet of static cling vinyl.
12. The privacy filter of claim 10 wherein said layer of adhering material comprises a layer of a pressure sensitive adhesive.
13. The privacy filter of claim 10 still further comprising a protective coating disposed on said first surface of said photopolymer film.
14. The privacy filter of claim 6 further comprising a layer of adhering material disposed on a second side of said photopolymer film for adhering said photopolymer film to the surface of a display screen.

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15. The privacy filter of claim 14 wherein said layer of adhering material comprises a sheet of static cling vinyl.

16. The privacy filter of claim 14 wherein said layer of adhering material comprises a layer of a pressure sensitive adhesive.

17. The privacy filter of claim 14 still further comprising a protective coating disposed on said first side of said photopolymer film.

18. A privacy filter for use on an electronic display screen comprising:
 a first flexible sheet of photopolymer film having a 180 degree field of view perpendicular to a first side of said sheet,
 said sheet of photopolymer film having at least one holographic image exposed thereon wherein
 said at least one holographic image is not visible within a central field of view, and
 said at least one holographic image is visible within a left holographic field of view disposed to the left of said central field of view; and
 a second flexible sheet of photopolymer film having a 180 degree field of view perpendicular to a first side of said sheet,
 said sheet of photopolymer film having at least one holographic image exposed thereon wherein
 said at least one holographic image is not visible within a central field of view, and
 said at least one holographic image is visible within a right holographic field of view disposed to the right of said central field of view,
 said first and second photopolymer films being disposed in overlying relation.

19. The privacy filter of claim 18 wherein said central field of view is about 60 degrees in angular dimension symmetrically centered about a centerline

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extending perpendicular to said sheet and said left and right holographic fields of view are about 30 degrees in angular dimension symmetrically arranged on opposing side of said central field of view.

20. The privacy filter of claim 18 wherein said at least one holographic image in each of said first and second sheets of photopolymer films comprises a plurality of individual holographic images arranged in a predetermined pattern on said first and second sheets of photopolymer film.

21. The privacy filter of claim 18 further comprising a layer of adhering material disposed on a second side of said second photopolymer film for adhering said photopolymer films to the surface of a display screen.

22. The privacy filter of claim 21 wherein said layer of adhering material comprises a sheet of static cling vinyl.

23. The privacy filter of claim 21 wherein said layer of adhering material comprises a layer of a pressure sensitive adhesive.

24. The privacy filter of claim 21 still further comprising a protective coating disposed on said first surface of said photopolymer film.

25. The privacy filter of claim 19 further comprising a layer of adhering material disposed on a second side of said photopolymer film for adhering said photopolymer film to the surface of a display screen.

26. The privacy filter of claim 25 wherein said layer of adhering material comprises a sheet of static cling vinyl.

27. The privacy filter of claim 25 wherein said layer of adhering material comprises a layer of a pressure sensitive adhesive.

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28. The privacy filter of claim 25 still further comprising a protective coating disposed on said first side of said photopolymer film.
29. A method of constructing a holographic image having an off center field of view comprising the steps of:
 providing a holographic recording plate;
 directing a reference beam onto the holographic recording plate;
 directing an image beam onto the holographic recording plate at an angle of between about 50 degrees and about 60 degrees from a centerline extending perpendicular to said surface of said holographic recording plate,
 whereby a 1st generation master holographic interference pattern is formed on said plate.
30. The method of claim 29 wherein said reference beam is directed at an angle substantially perpendicular to a surface of the holographic recording plate.
31. The method of claim 29 wherein said image beam is directed onto said holographic recording plate at an angle of about 60 degrees.
32. The method of claim 29 wherein a blocking plate is positioned between a source of the image beam and said recording plate so as to partially block the image beam from said recording plate.
33. The method of claim 29 wherein said holographic recording plate is arranged about X-Y-Z reference axes with the X axis extending lateral to the plate, the Y axis extending longitudinally to the plate, and the Z axis extending perpendicular to the plate,
 said step of directing said image beam onto said plate comprising directing said image beam onto said plate within a reference plane extending through the Y-Z axes.

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34. The method of claim 33 wherein said step of directing said image beam onto said plate comprises directing said image beam onto said plate at an angle of about 60 degrees within said Y-Z reference plane.

35. The method of claim 29 wherein said holographic recording plate is arranged about X-Y-Z reference axes with the X axis extending lateral to the plate, the Y axis extending longitudinally to the plate, and the Z axis extending perpendicular to the plate,

said step of directing said image beam onto said plate comprising directing said image beam onto said plate within a reference plane extending through the X-Z axes.

36. The method of claim 35 wherein said step of directing said image beam onto said plate comprises directing said image beam onto said plate at an angle of about 60 degrees within said X-Z reference plane.

37. The method of claim 29 wherein said image beam is directed at a three-dimensional object at an angle of between about 50 degrees and about 60 degrees from a centerline extending perpendicular to a surface of said object, said image beam being deflected onto said recording plate, whereby a holographic interference pattern of said object is formed on said plate.

38. The method of claim 29 further comprising the step of:
providing a mask having a predetermined two-dimensional design formed therein;
placing the mask over the 1st generation master; and
duplicating the 1st generation master with said mask to form a 2nd generation master holographic interference pattern including the predetermined design of the mask.

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39. The method of claim 38 further comprising the step of exposing said 2nd generation master onto the top of a sheet of photopolymer film to create said holographic image having an off center field of view.

40. The method of claim 39 further comprising the step of applying a layer of adherent material to a bottom surface of said sheet of photopolymer film.

41. The method of claim 40 further comprising the step of applying a protective coating onto the top surface of said sheet of photopolymer film.

42. A method of constructing a holographic privacy filter for use on an electronic display comprising the steps of:

- a. providing a first holographic recording plate;
- b. directing a reference beam onto the holographic recording plate;
- c. directing an image beam onto the holographic recording plate at an angle of between about 50 degrees and about 60 degrees from a centerline extending perpendicular to said surface of said holographic recording plate, whereby a 1st generation master holographic interference pattern is formed on said plate;
- d. repeating steps a, b, and c, a plurality of times to thereby produce a plurality of individual 1st generation master plates;
- e. assembling said plurality of master plates in side by side relation to form a composite template of said privacy filter;
- f. providing a mask having a plurality of predetermined two-dimensional designs formed therein;
- g. aligning said mask over said plurality of assembled 1st generation master plates so that each of said plurality of designs is in registered alignment with a corresponding one of each of said 1st generation master plates;
- h. providing a second holographic recording plate;
- h. duplicating said assembly of said 1st generation master plates onto said holographic plate to form a 2nd generation master plate that includes said two-dimensional designs; and

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I. exposing said 2nd generation master onto a sheet of photopolymer film to create a plurality of individual holographic images on said photopolymer film,

each of said plurality of holographic images having an off center field of view.

43. The method of claim 42 wherein said image beam is directed onto said first holographic recording plate at an angle of about 60 degrees.

44. The method of claim 42 wherein a blocking plate is positioned between a source of the image beam and said recording plate so as to partially block the image beam from said recording plate.

45. The method of claim 42 wherein said first holographic recording plate is arranged about X-Y-Z reference axes with the X axis extending lateral to the plate, the Y axis extending longitudinally to the plate, and the Z axis extending perpendicular to the plate,

said step of directing said image beam onto said plate comprising directing said image beam onto said plate within a reference plane extending through the Y-Z axes.

46. The method of claim 45 wherein said step of directing said image beam onto said first holographic recording plate comprises directing said image beam onto said first holographic recording plate at an angle of about 60 degrees within said Y-Z reference plane.

47. The method of claim 42 wherein said first holographic recording plate is arranged about X-Y-Z reference axes with the X axis extending lateral to the plate, the Y axis extending longitudinally to the plate, and the Z axis extending perpendicular to the plate,

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said step of directing said image beam onto said first holographic recording plate comprising directing said image beam onto said first holographic recording plate within a reference plane extending through the X-Z axes.

48. The method of claim 47 wherein said step of directing said image beam onto said first holographic recording plate comprises directing said image beam onto said plate at an angle of about 60 degrees within said X-Z reference plane.

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